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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**Docket Number (Optional)  
9862-000017/US

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

On \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Application Number  
10/779,677Filed  
February 18, 2004First Named Inventor  
Dae-Seung JEONG et al.Art Unit  
2611Examiner  
Kabir A. TIMORY

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This Request for Review is being filed concurrently with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)☒ attorney or agent of record.  
Registration number 35,094.☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

Signature

John A. Castellano  
Typed or printed name703-668-8000  
Telephone numberOctober 23, 2007  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/779,677                      Group Art Unit: 2611  
Filing Date: February 18, 2004              Examiner: Kabir A. Timory  
Applicant: Dae-Seung JEONG et al.  
Title: RECOVERY OF CLOCK AND DATA USING QUADRATURE  
CLOCK SIGNALS  
Attorney Docket: 9862-000017/US

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
**Mail Stop AF**

October 23, 2007

**REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Dear Sir:

Applicants hereby request review of the August 6, 2007 Final Rejection of this application. A Notice of Appeal and fee in the amount of \$510.00 is filed concurrently herewith. The Commissioner is also authorized to charge any additional fee or credit any overpayment associated with this communication to Deposit Account No. 08-0750.

**REMARKS**

Claims 1-23 are pending in the current application. Claims 1, 14, 16, 18 and 21 are independent claims. Claims 1-23 stand finally rejected.

The August 6, 2007 Office Action rejects claims 1-17 and 21-23 under 35 U.S.C. § 102(b) as being anticipated by US Patent 5,506,874 to Izzard et al. ("Izzard"); and rejects claims 18-20 under 35 U.S.C § 103(a) as being unpatentable over Izzard in view of US Patent 6,847,789 to Savoj et al. ("Savoj").

Appellants seek the panel's review of the rejection of the claims due to legal and factual deficiencies in the outstanding Office Action.

**I. Legal Deficiencies:**

Under 35 U.S.C. § 102(b) a person shall be entitled to a patent unless the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

It is alleged in the Office Action that Izzard anticipates claims 1-17 and 21-23 because Izzard discloses each and every feature recited in the rejected claims. However, Izzard fails to disclose "four latches controllable to latch, at different times according to quadrature clock signals," as recited in independent claim 1. Similarly, Izzard also fails to disclose "data latches, the latches being clocked by quadrature clock signals," as recited in independent claim 14; "four XOR gates receiving latched signals, which are latched according to one of quadrature clock signals," as recited in claim 16; and a method of including "latching, at different times according to quadrature clock signals," as recited in independent claim 21.

Izzard relates to a phase detector and method that uses a series of latches and quadrature clock signals. However, as clearly shown in Fig. 1 of Izzard, the quadrature clock signals I and Q are not used to control the latching of latches, but rather are used for data inputs to the latches. Izzard explicitly recites, "input signal I is applied to the input of latch 12 and of latch 14" (column 2, lines 54-55) and "input signal Q is applied to the input latch of 16 and also to the

input latch of 18” (column 2, lines 63-64). The latching of the latches in the arrangement of Izzard is controlled by a signal D which is fed into the clocking input of each latch as shown in Fig. 1. Izzard also clearly states that signal D is not a quadrature clock signal but rather is “an arbitrary stream of digital signals” (column 3, lines 25-28).

It is also alleged in the Office Action that the latches 12a, 12b, 16a, 16b of Fig. 9 are four latches controllable to latch at different times according to quadrature clock signals, respectively, data received by the phase detector. However, the latches or Izzard are controlled by the signal D and not a quadrature clock signal. Rather, as clearly stated in Izzard, the input signals I, Q are used as data inputs to the latches. For example, as shown in Fig. 9 of Izzard, the signal CLK1 and CLK2 equal the input signal I each of which are fed into the data inputs of the latches 12a and 12b. Similarly, the signals Mark 1 and Mark 2 correspond to Q signals and are fed into the data inputs of latches 16a and 16b (see Fig. 9; column 5, lines 33-38). Moreover, as clearly shown in Fig. 9, the D signal is fed into the clock port of all of the latches and as such the latches are controlled according to the D signal and not quadrature clock signals.

Because Izzard fails to disclose all of the features recited in the rejected claims, the rejected claims are not anticipated by Izzard. Thus, rejection of the claim is under 35 U.S.C. § 102(b) is clear legal error.

Claims 18-20 are rejected under 35 U.S.C § 103(a) which states that a patent may not be obtained though the invention is not identically disclosed or described as set forth in §102 of this title, if the differences between subject matter sought to be patented in the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Appellants submit that claims 18-20 are patentable over the combination of Izzard and Savoj because the claimed subject matter would not have been obvious over the combination of references. For example, claim 20 which depends from claim 18 recites that the phase error generating circuit includes “four latches controllable to latch, at different times according to the quadrature clock signals, respectively, data received by the phase detector so as to form a latch

signals.” As discussed above, Izzard fails to disclose such latches but rather, the latches of Izzard are controlled by the D signal and not by quadrature clock signals which are fed into data inputs of the latches.

It is alleged in the Office Action that Savoj teaches a charge pump which is admitted as being deficient from the Izzard reference. However, even were the combination of references made as proposed in the Office Action, because Savoj fails to overcome the deficiencies of Izzard, the combination of references fails to render the rejected claims obvious. Accordingly, due to the legal errors set forth in the Final Rejection in the claims, Appellants respectfully request that the Final Rejection be withdrawn and prosecution reopened.

## **II. Factual Deficiencies in the Claim Rejection:**

In addition to the legal deficiencies set forth above, Appellants submit that due to factual deficiencies in the Final Rejection in the claims, prosecution of this application should be reopened. For example, the quadrature clock signal I and Q of Izzard are connected to the data ports of each latch and a signal D (an arbitrary stream of digital signals) is connected to a clocking port of each of the latches. Because Izzard explicitly states that the “input signal I is applied to the input of latch 12 and of latch 14” and the “input signal Q is applied to the input latch of 16 and also the input of latch 18” it is clear fact that the quadrature signals I and Q are not used to control the latching of the latches, but rather as data inputs to the latches. The latching of the latches in the arrangement of Izzard is controlled by the signal D which is not a quadrature clock signal but is rather defined in Izzard as “an arbitrary stream of digital signals.” Because the Examiner continues to misinterpret the clear disclosure of Izzard, there are factual deficiencies in the Final Rejection of the claims which warrant reopening of prosecution.

For at least these reasons, the Final Office Action includes legal and factual deficiencies and also fails to establish a *prima facie* case of anticipation and/or obviousness. Because the applied references fail to disclose or suggest each and every feature recited in the pending claims, withdrawal of the Final Rejection and allowance of this application is respectfully requested.

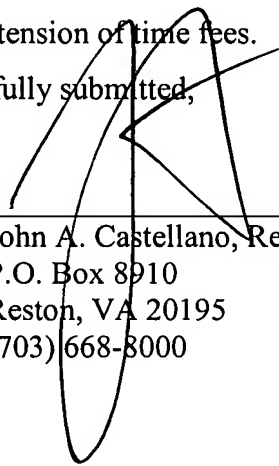
**CONCLUSION**

Appellants respectfully requests that the Panel reconsider and withdraw of all the rejections of record, and allow the pending claims.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 CFR §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

By:

  
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